

MARSHALL STAR

Serving the Marshall Space Flight Center Community

July 2, 2009

Successful tanking test keeps Endeavour on track for July 11 launch

By Sanda Martel

Space shuttle Endeavour will launch on its STS-127 mission to the International Space Station July 11 at 6:39 p.m. CDT. A tanking test July 1 verified that repairs made on the launch pad at the Kennedy Space Center, Fla., corrected a hydrogen leak detected on two previous launch attempts.

During the three-hour test, no leaks were reported as the liquid hydrogen reached the level where unacceptable leakage was noted on the two previous launch attempts June 13 and 17. The test verified that repairs made to the ground support equipment and external tank corrected the leak at the Ground Umbilical Carrier Plate, or GUCP. The GUCP is attached to the venting system used to carry excess hydrogen



Technicians at the Kennedy Center work in the Ground Umbilical Carrier Plate, or GUCP, area on space shuttle Endeavour's external fuel tank.

safely away from the launch pad.

For the test, the external tank was loaded with liquid oxygen and liquid hydrogen, just as it would be on launch

See Endeavour on page 3

Human Space Flight Committee visits Marshall Center



The Human Space Flight Plans Committee – appointed by the White House to review NASA's human spaceflight and exploration capabilities and plans – visited the Marshall Space Flight Center on June 25. The committee toured several facilities, including the Environmental Control and Life Support Systems laboratory. They also viewed a liquid oxygen damping demonstration and thrust oscillation technology experiment. Here, from right, committee members and former astronauts Sally Ride and Leroy Chiao listen as Andre Passeur, second from left, a Jacobs Technology employee in Marshall's Metals Engineering Branch, explains the friction stir welding process. It uses forging pressure and frictional heating to produce high-strength bonds virtually free of defects. Also participating are Garry Lyles, left, associate director for technical management in Marshall's Engineering Directorate; Marshall materials engineer Bob Carter, third from left; and retired U.S. Air Force Gen. Lester Lyles, third from right. The 10-member committee, also known as the Augustine Commission, was appointed in May.

Director's Corner

A busy summer for the Marshall Center

Summer is in full swing, and we are all working hard and, I hope, having some fun. This is a busy time for us here at Marshall, with a lot of key activities going on, including the successful launch of LRO/LCROSS last month, shuttle flights on the schedule and, of course, the ongoing Review of U.S. Human Space Flight Plans by the Augustine Committee who visited Marshall on June 25.

This visit went extremely well, and I am so proud of the entire Marshall team who pulled together to demonstrate the importance of Marshall's proven capabilities to the Committee members. It has taken, and continues to take, a lot of people to pull together the right information requested by the panel to facilitate their evaluation on the viability of the current direction of our nation's space program. So, thank you all very much for your commitment to this critical visit and to subsequent requests for information from the panel.

Another big activity this summer occurs on July 20, which marks the 40th anniversary of the Apollo 11 moon landing and the historic first steps by humans on the surface of the moon. On this date, Marshall will hold an employee appreciation celebration at the Davidson Center, and I hope you will all plan to attend and support the spirit of exploration and space travel in our country. It truly is amazing how far we have come. When President Kennedy committed the nation in 1961 to landing a man on the Moon, America had sent only a single astronaut briefly into space. By the time the Apollo program ended, it had taken the efforts of more than a half-million people, produced the largest and most powerful rockets ever built and sent humans farther than they had ever gone before. And many of you have personally been able to see where we've gone from there – through the Shuttle program and on to building our next generation of Ares launch vehicles.

None of this could have or can be accomplished without all your hard work and commitment over the years. I commend you for your efforts.

But in the midst of all our hard work, I do want to encourage you all to take the appropriate time away from work to ensure your quality of life. I want you to use your down time for just that – time to spend with your family and friends and to cherish those that are important to you.

As we approach Independence Day, I encourage you all to remember the soldiers and their loved ones who have sacrificed so much to help ensure our freedom and privilege in the United States. This recently hit close to home for us, as one of our Marshall family, Charles Hall, lost his son, Sergeant Jeff Hall, in the line of duty in Afghanistan. Our thoughts and prayers go out to Charlie, his wife Annette and his entire family at this time of loss. I know the entire Marshall team respects the service and sacrifice of this brave soldier who gave his life for his country, and in salute to all of our troops, who are positioned all over the world to help ensure our livelihood and independence. We thank you.

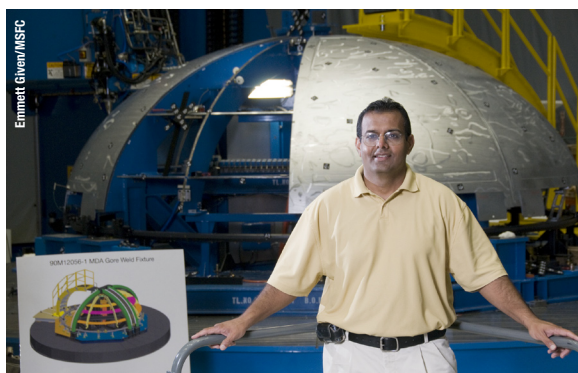


A handwritten signature in black ink that reads "Robert M. Lightfoot".

Robert Lightfoot
Marshall Center
Acting Director

THE FACE OF MISSION SUCCESS IS: Sandeep Shah

*Subsystem manager
for upper stage
manufacturing and assembly
in the Ares Projects Office*



- **Organization:** Ares I Upper Stage office
- **Joined NASA:** Became a civil service employee in 1999; with Lockheed Martin 1994-1999.
- **Education:** Bachelor's in metallurgical engineering, Indian Institute of Technology in Bombay, India, 1985; master's in materials engineering, Vanderbilt University in Nashville, Tenn., 1988; doctorate in materials engineering, Vanderbilt, 1993.
- **Responsibilities:** I manage the schedule and budget associated with manufacturing and development of the upper stage of the Ares I rocket. I am also responsible for the upper stage's manufacturing transition to the Michoud Assembly Facility for the design, development, test and evaluation production effort.
- **What is the coolest part of your job?** The broad involvement and experience in full-scale manufacturing and project planning.
- **What is your favorite memory at Marshall?** Working with the center workforce in problem solving on highly visible past programs such as the shuttle's super lightweight external tank – which is 7,500 pounds lighter than its predecessors – and now on the upper stage.

NASA awards Wackenhut agency-wide protective services contract

From NASA Headquarters

NASA has announced the selection of Wackenhut Services Inc. of Palm Beach Gardens, Fla., to perform an agency-wide consolidated contract for protective services. The initial contract value for a possible 10-year period totals approximately \$1.2 billion.

Wackenhut will provide fire services, security services, emergency management, export control, protective services training, protective services information assurance and information technology security.

The contract is a performance-based, indefinite delivery, indefinite quantity contract, enabling protective services to be provided to all NASA installations under a single, agency-wide contract. This consolidated approach will promote coordinated and efficient operations throughout NASA.

It is anticipated that 14 firm-fixed price task orders will be issued under the contract. Each task order will authorize work to be performed at NASA locations throughout the United States. The basic period of performance will be for five years. The contract will contain five, one-year option periods. The contract also contains an option to increase the maximum value by 20 percent, if needed. The major subcontractor for the contract is Chenga Security and Protective Services of Ashburn, Va.

This selection is pursuant to re-evaluation of the proposals and a new selection decision ordered by the U.S. Court of Federal Claims directing NASA to take corrective action relative to its initial source selection decision. Pursuant to the court order, NASA appointed a reconstructed source evaluation board, appointed a new source selection official, issued reconsidered findings and made a new selection decision.

Endeavour *Continued from page 1*

date. Afterward, a team conducted a walk down inspection and the tank was drained.

Technicians replaced the old seal with a two-piece seal to provide increased flexibility of the seal at the external tank carrier assembly as the tank is fueled. They added small washers to the legs of the Ground Umbilical Carrier Assembly to prevent side-to-side movement.

The 16-day mission to the International Space Station will feature five spacewalks and complete construction of the Japan Aerospace Exploration Agency's Kibo laboratory. Astronauts will attach a platform to the outside of the Japanese module that will allow experiments to be exposed to space.

For the latest information about the STS-127 mission and its crew, visit <http://www.nasa.gov/shuttle>.

Martel, an AI Signal Research Inc. employee, supports the Office of Strategic Analysis & Communications.

Celebrating the successful launch of LRO/LCROSS



In honor of NASA's initial step in returning humans to the moon, nearly 400 Marshall Space Flight Center team members gathered in Building 4203 on June 19 to celebrate the successful launch of the Lunar Reconnaissance Orbiter and the Lunar Crater Observation and Sensing Satellite. The lunar probes launched from Cape Canaveral Air Force Base, Fla., on June 18. During the celebration, team members enjoyed refreshments as they viewed launch video footage and mission animations. LRO will help identify safe landing sites for future human explorers, locate potential resources, characterize the radiation environment and test new technology. LCROSS will seek a definitive answer about the presence of water ice at the lunar poles. The two missions are managed by Marshall's Lunar Precursor Robotic Program. The event was hosted by the Science & Mission Systems Office.

Classified Ads

To submit a classified ad to the Marshall Star, go to Inside Marshall, to "Employee Resources," and click on "Employee Ads — Submit Ad." Ads are limited to 15 words, including contact numbers. No sales pitches. Deadline for the next issue, July 9, is 4:30 p.m. Thursday, July 2.

Miscellaneous

Kasson pool table, Auburn model, fruitwood, Queen Anne feet, leather pockets, all accessories, \$2,500. 880-6563

Queen Anne dining table, six Fiddleback Windsor chairs, solid oak, clear finish, \$750 obo. 347-1674

Entertainment chest, solid oak, 55"H x 24"D x 30"W, \$250. 617-9614

Radio Flyer Ultimate Family Wagon, wagon canopy, photo available. 931-993-9471 ask for Norma

Dewalt 12-volt drill, two batteries, storage case, \$55. 527-8116

Wheelchair, adult XL diapers, Christian books, Nanny Cam, Baquacil, more, www.ouryardsalestuff.com. 778-8893

Four tickets to NASCAR AMP Energy 500 Race at Talladega,

start/finish line, \$75 each. 374-9607

Shoreport floating Jet Ski lift, slurry pole attachments, \$750. 714-4651

Weslo Cardio Skier Exerciser, \$90. 772-1870

Complete 52-gallon reef tank, stand, lots of coral/fish, all supplies, Metal Halide hood, \$825. 975-9497

Titleist DCI irons 3-PW, steel shafts, R-flex, \$150. 881-5642

Kenmore self-cleaning range, almond and black ceramic top, one chip on top, \$175. 830-0248

Schwinn Airdyne exercise bike, \$225; exercise step platforms, \$35. 772-1917

Bedroom set, queen size, hutch/mirror, headboard/footboard, end table, mattresses, you haul, \$150. 508-8269

Electric hospital bed, deluxe mattress; triangle table; Baldwin piano, bench; China, 12 place. 772-7262

10-inch table saw, mid-80s model, \$20. 883-0568

DP weight machine, 300 lbs free weights, bench press, leg lifts, arm pulls, \$100. 651-5847

Shaws Original Fireclay Apron Sink, outside dimensions: 24"x18"x10", \$475. 541-6074

Gas propane water heater, 40 gallons, \$75. 651-2429

Vehicles

2008 Harley Davidson Road King Classic, anti-lock brakes, backrest, extra chrome, 3k miles, \$16,999. 656-7891

2007 Sidney Outback 28-foot Fifth Wheel Camper, \$20,500. 679-2410

2006 Sylvan 8522 cruise pontoon boat, 22 feet, 115HP

Yamaha motor, sundeck, Bimini top, \$18,900. 527-6958

2004 Nissan 350z, track edition, factory Nismo kit, new tires, 71k miles. 205-807-7841

2004 Motorhome, R-Vision 33' Class-A, workhorse chassis, extended warranty, \$55,000. www.thewillettfamily.com/rv. 883-7021

2002 31-foot fifth wheel camper, sleeps eight, \$11,900. 721-1260

1998 Oldsmobile 98, white, fully loaded, cold air, 180k miles, \$1,500. 468-9377

1977 Harley Davidson FX, \$6,500. 464-3642

Ford F-150 truck, restored 85 model, four-wheel drive, \$2,950. 259-1523

Wanted

FAA Inspection Authorization needed for annuals/main-tenance on Cessna 210M hangered at Huntsville airport. 832-928-6066

Houses to clean, elderly/children assistance. 651-4723

50 cc Honda, Kawasaki, Yamaha four wheeler. 338-9840

Macbook laptop for student. 527-8116

Futon for play/game room. 990-4243

Found

Cell phone, Building 4601, second floor conference room, June 5. 544-6695

Lost

Nike sunglasses near or in Building 4755. 655-8370

Astronauts present 22 Snoopy Awards at Marshall

By Jessica Wallace

Twenty-two Marshall Space Flight Center team members have been honored with Silver Snoopy Awards for outstanding contributions to the success of crewed spaceflight missions.

The Silver Snoopy Award recipients are presented a lapel pin depicting Snoopy, the dog from the comic strip "Peanuts," as an astronaut. Each of the pins has flown on previous space shuttle missions. Honorees also receive a framed certificate and a letter signed by NASA astronauts.

The awards were presented by STS-130 astronauts Nicholas Patrick, George Zamka, Robert Behnken and Terry Virts, who were joined by Marshall Center Acting Director Robert Lightfoot. The ceremony was held at Teledyne Brown Engineering in Research Park in Huntsville. The STS-130 mission is scheduled to launch in December.

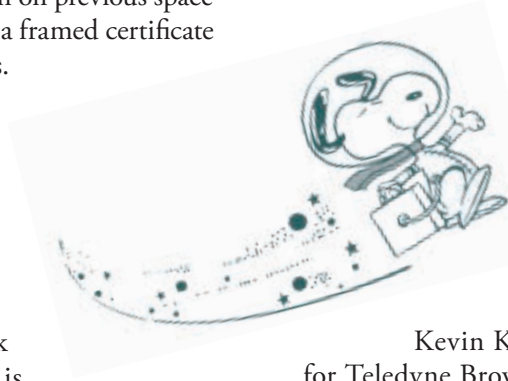
Civil service honorees were Matt Casiano, an aerospace engineer in the Engineering Directorate; Carol Bryant, an information technology specialist in the Office of the Chief Information Officer; Chris Delano, an aerospace engineer in the Safety & Mission Assurance Directorate; Rosemary Finley, an engineer in the Engineering Directorate; Craig Garrison, an aerospace engineer in the Engineering Directorate; Efrem Hanson, a contract specialist in the Office of Procurement; Elizabeth Holleman, an aerospace engineer in the Engineering Directorate; Alan Johnston, an engineer in the Engineering Directorate; Carolyn Lundy, a human

resources specialist in the Office of Human Capital; David Morgan, a contract specialist in the Office of Procurement; Jeff Rayburn, an aerospace engineer in the Engineering Directorate; David Reynolds, an aerospace engineer in the Engineering Directorate; Karen Bishop, an aerospace engineer in the Engineering Directorate; Michelle Schneider, a lead computer engineer in the Engineering Directorate; Tracy Vanderslice, an aerospace engineer in the Safety & Mission Assurance Directorate; and Todd Wilkenson, an aerospace engineer in the Engineering Directorate.

Contractor honorees were Troy Daugette, a technician for Alliant Techsystems Inc., supporting the Engineering Directorate;

Kevin Kasperitis, a timeline change officer for Teledyne Brown Engineering, supporting the Engineering Directorate; Raymond Moore, a Payload Operations Integration safety engineer for Teledyne Brown Engineering, supporting the Engineering Directorate; Kathy Moorhead, who supports nodes 2/3 configuration and data management for COLSA Corp. in the Engineering Directorate; Mark Shelton, a senior systems engineer for Teledyne Brown Engineering, supporting the Science & Mission Systems Office; and Jeff Smith, a senior systems engineer for Teledyne Brown Corp., supporting the Science & Mission Systems Office.

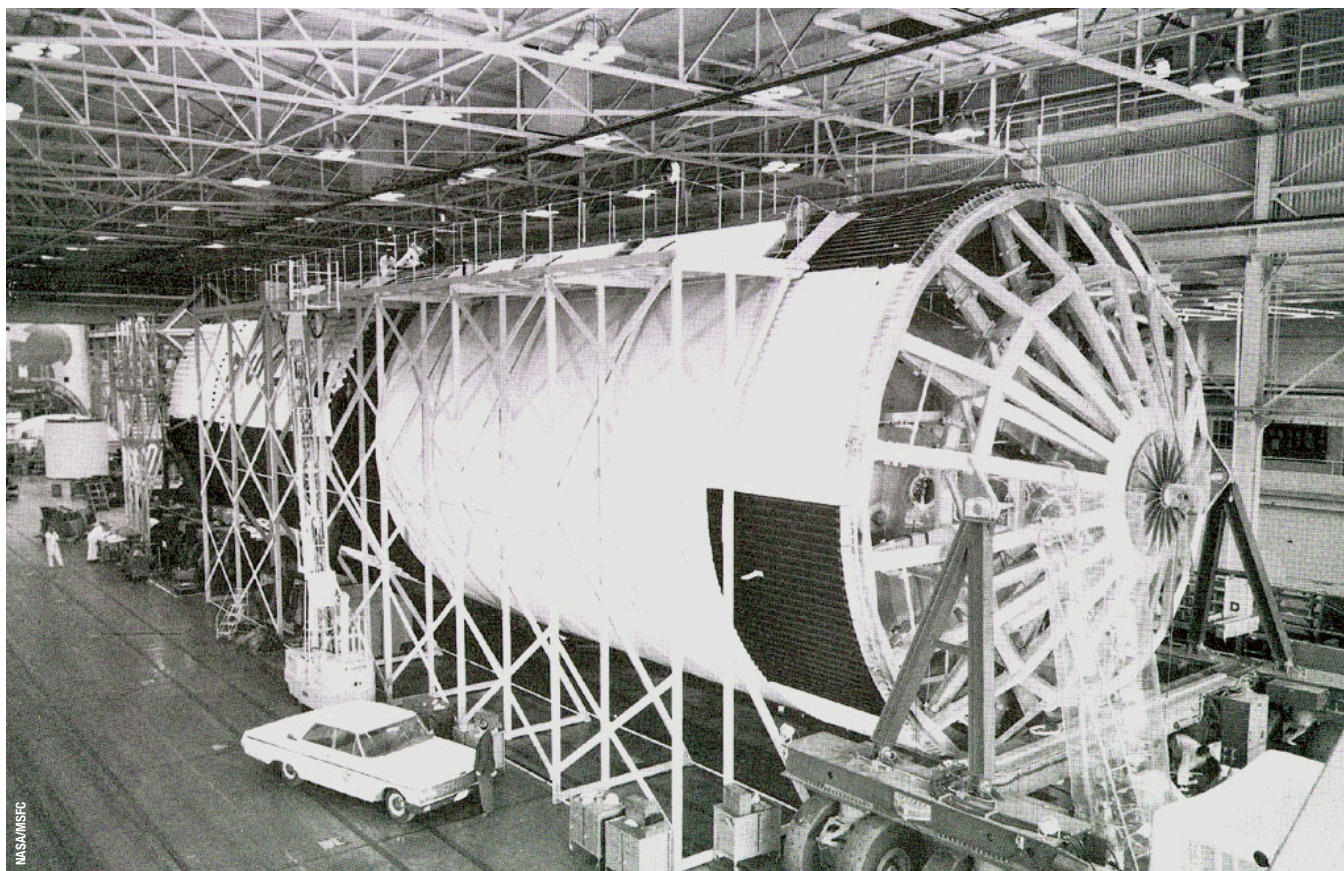
Wallace, an AI Signal Research Inc. employee and the Marshall Star editor, supports the Office of Strategic Analysis & Communications.



Front row from left are Snoopy award recipients Matt Casiano, David Reynolds, Tracy Vanderslice, Kevin Kasperitis, Alan Johnston, Carolyn Lundy, Michelle Schneider, Elizabeth Holleman, Rosemary Finley, Karen Bishop, Jeff Rayburn and Craig Garrison. Back row from

left are astronauts George Zamka and Nicholas Patrick, recipients Carol Bryant, Efrem Hanson, Chris Delano, David Morgan, Todd Wilkenson, Jeff Smith, Raymond Moore, Mark Shelton, Kathy Moorhead, Troy Daugette, and astronauts Terry Virts and Robert Behnken.

Apollo: 40 years



Looking back at Apollo, ahead to a celebration

In this historic photograph from 1960, the massive first stage of a Saturn V rocket dwarfs the parked automobile beside it. The stage was assembled by Boeing Company engineers in the Marshall Space Flight Center's Manufacturing Engineering Laboratory. The Marshall Center's work on the Saturn V helped ensure the success of the Apollo missions

to the moon in the 1960s and 1970s. To commemorate that achievement, all Marshall team members, their families and retirees are invited to gather July 20 at the U.S. Space & Rocket Center to celebrate the program's defining moment: the touchdown of Apollo 11's crew on the moon on July 20, 1969. For details, visit Inside Marshall.

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